

CLAIMS

1. System for the control of means for locking/unlocking at least one openable panel of a vehicle, in particular an automobile, comprising transmission/reception means (3, 4, 5) and memory means (7) which are carried by the vehicle and transmission/reception means (9, 10, 11) and memory means (13) which are intended to be carried by a user, the transmission/reception means of the vehicle (3, 4, 5) forming a circular shift register in which is stored a pseudo-random code and comprising means (3, 6, 7) for transmitting an interrogation signal which carries such a pseudo-random code, the transmission/reception means of the user (9, 10, 11) comprising means (12, 13, 14) for de-spreading the signal received if the pseudo-random code carried by the said signal is synchronized with a corresponding pseudo-random code stored in their memory means (13) and being intended to transmit a response signal able to control the actuation of the unlocking of the openable panel, characterized in that
- the memory means (13) and the transmission/reception means (9, 10, 11) of the user form a circular shift register and furthermore comprise means (9, 12, 13, 14) for transmitting a signal in response which signal carries a pseudo-random code and a signature which is specific to the said transmission/reception means (9, 10, 11) of the user, the transmission/reception means (3, 4, 5) on the vehicle comprising means (6, 7, 8) for de-spreading the signal received if the pseudo-random code carried by the said response signal is synchronized with a corresponding pseudo-random code stored in their memory means (7) and for

verifying whether the signal received carries the signature of the transmission means.

2. System according to Claim 1, characterized in that  
5 the interrogation signal transmitted by the transmission/reception means of the vehicle (3, 4, 5) comprises a key code, the response signal transmitted by the transmission/reception means (9, 10, 11) of the user comprising a secret code  
10 determined by the said transmission/reception means of the user as a function of the said key code.
3. System according to Claim 2, characterized in that  
15 the transmission/reception means (3, 4, 5) of the vehicle comprise means (8) for mixing the said key code with the pseudo-random code within the interrogation signal.
4. System according to Claim 2, characterized in that  
20 the transmission/reception means (9, 10, 11) of the user comprise means (13) for mixing the said secret code with the pseudo-random code within the response signal.
5. System according to Claim 2, characterized in that  
25 the key code and/or the secret code constitutes (constitute) the pseudo-random code of the interrogation signal or response signal.
6. System according to Claim 1, characterized in that  
30 the signature of the transmission/reception means (9, 10, 11) of the user consists of the pseudo-random code of the response signal.
7. System according to one of the preceding claims,  
35 characterized in that it comprises means for

synchronizing the various memory means, prior to the transmission of the interrogation signal.

- 5 8. System according to Claim 7, characterized in that the transmission/reception means (3, 4, 5) of the vehicle comprise means for self-synchronizing with a pseudo-random code transmitted by the transmission/reception means of the user upon their activation.
- 10 9. System according to Claim 8, characterized in that this pseudo-random code is a shorter code than the pseudo-random code or codes used by the transmission/reception means of the vehicle and of the user after synchronization.
- 15 10. System according to Claim 9, characterized in that the pseudo-random code or codes used by the transmission/reception means of the vehicle and of the user after synchronization are 127-bit codes.
- 20 11. System according to one of the preceding claims, characterized in that the interrogation signals and response signals are RF signals modulated by a two-phase NRZ modulation.
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